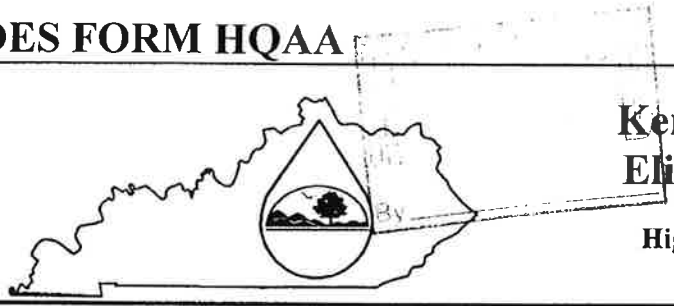
KPDES FORM HQAA



Kentucky Pollutant Discharge Elimination System (KPDES)

High Quality Water Alternative Analysis

The Antidegradation Implementation Procedures outlined in 401 KAR 5:030, Section 1(3)(b)5 allows an applicant who does not accept the effluent limitations required by subparagraphs 2 and 3 of 5:030, Section 1(2)(b) to demonstrate to the satisfaction of the Environmental and Public Protection Cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the water is located. The approval of a POTW's regional facility plan pursuant to 401 KAR 5:006 shall demonstrate compliance with the alternatives analysis and socioeconomic demonstration for a regional facility. This demonstration shall also include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

I. Permit Information

Facility Name:	Bogle Farms, LLC	**KPDES NO.:**	KY0107514
Address:	1851 Peggy Flat Road	**County:**	Madison
City, State, Zip Code:	Paint Lick, Ky 40461	**Receiving Water Name:**	Ballard Branch of Silver Creek

II. Alternatives Analysis - For each alternative below, discuss what options were considered and state why these options were not considered feasible.

1. **Discharge to other treatment facilities.** Indicate which treatment works have been considered and provide the reasons why discharge to these works is not feasible.

Animal waste Lagoon was considered, but in final analysis it was determined to be cost prohibited, and in addition the long term maintenance of the lagoon was time consuming and very costly. A waste storage facility is planned for short term storage of manure which will be land applied at proper times. The nearest municipal water treatment plant is 1.8 miles to the nearest sewer hookup, with cost of Transportation + cost of Treatment. Checked with Berea Municipal treatment and they are unable to accept that much storm drain collection and capacity. The cost would put small farm out of business. Basically dealing with runoff from rainfall. Conservation methods have been put in such as diversion ditches, fenced water ways, grassways and buffer grass areas, along with rip/rap rock check dams.

2. **Use of other discharge locations.** Indicate what other discharge locations have been evaluated and the reasons why these locations are not feasible.

For other discharge locations, water would have to be collected and pumped up hill 1500 ft. to Judytown Branch of Walnut Meadows Branch of Paint Lick Creek using 4" line at cost of $6,000.00, A Lagoon - $60,000.00 / pump $10,000.00. Total of 76,000.00 with still untreated water.

II. Alternatives Analysis - continued

3. **Water reuse or recycle.** Provide information about opportunities for water reuse or recycle at this facility. If water reuse or recycle is not a feasible alternative at this facility, please indicate the reasons why. Large quantities of water are not used in day to day operations. Water run off after a rain event has been diverted away from animal feeding Lots by diversion ditches, fenced water grassways and buffer grass area have been put in place. Along with RIP/RAP rock check dams. Tiled trapezoidal water ways.
Water waste generated is 23,720,336 gallons per year, Water to be recycled is none because it is not used in the first place. Water cannot be used for irrigation 30 Acres Available, propably need 300 Acres to irrigate property. Spray system would cost $80,000.00,

4. **Alternative process or treatment options.** Indicate what process or treatment options have been evaluated and provide the reasons they were not considered feasible.

Covered confinement area 20 Acres would cost approximately 3 million dollars or more,
The way we are preventing waste water from being generated is by using a diversion system on site ~~treatment~~ diversion system. On site treatment plant would cost 2½ million dollars. Far too costly for small farm.

II. Alternatives Analysis - continued

5. **On-site or subsurface disposal options.** Discuss the potential for on-site or subsurface disposal. If these options are not feasible, then please indicate the reasons why.

Because of the volume of run off water exceeds the capacity for available acreage.

How much runoff? - 23,720,336 gal./yr.
Acreage available - 30 Acres.
Why not build retention pond so large it never discharges?
All retention ponds eventually discharge.
Septic tank instead of discharging?
Soils are wet natured and saturrated at certain times.
Alternatives considered? - Irrigation - Not enough available Land. Cost of Alternatives - Refer to previous estimates.

6. **Evaluation of any other alternatives to lowering water quality.** Describe any other alternatives that were evaluated and provide the reasons why these alternatives were not feasible.

Municipal sewer system - Not available
Why not close operation and remove the animals?
What would be adverse economic impacts?

Farm was purchased to keep and background cattle to generate income to pay for farm.
Feeding cattle is how we plan to pay for farm,
It would Bankrupt Us!

III. Socioeconomic Demonstration

1. State the positive and beneficial effects of this facility on the existing environment or a public health problem.

The nutrients that are provided to go back on crop land and grazing land which promotes vegative growth there for reducing soil erosion.

2. Describe this facility's effect on the employment of the area

I have myself and 2 Employees onsite and also provide support for several independant contractors, indirect jobs affected, Feed Mills, Veternarian, equipment dealers, rock quarry, county taxes we pay - taxes that independant contractors pay.

3. Describe how this facility will increase or avoid the decrease of area employment.

2 Employes, myself and Local contractors part of their revenue.

4. Describe the industrial or commercial benefits to the community, including the creation of jobs, the raising of additional revenues, the creation of new or additional tax bases.

property taxes, (Sales tax), independant Contractors fees, farm permits.

5. Describe any other economic or social benefits to the community.

Supporting Local farmers in marketing of their Cattle and buying Local feed Stuffs.

III. Socioeconomic Demonstration - continued

	Yes	No
6. Will this project be likely to change median household income in the county?	☑	☐
7. Will this project likely change the market value of taxable property in the county?	☑	☐
8. Will this project increase or decrease revenues in the county?	☑	☐
9. Will any public buildings be affected by this system?	☐	☑

10. How many households will be *economically* or *socially* impacted by this project? 2 + All Independent Contractors + suppliers.

11. How will those households be *economically* or *socially* impacted? (For example, through creation of jobs, educational opportunities, or other social or economic benefits.)

Creation of Jobs.
Contractors + suppliers through goods + Services

would any household that consumes locally grown be impacted?
Cattle are sold at Markets, not local consumers.

	Yes	No
12. Does this project replace any other methods of sewage treatment to existing facilities? (If so describe how)	☐	☑

	Yes	No
13. Does this project treat any existing sources of pollution more effectively? (If so describe how.)	☐	☑

III. Socioeconomic Demonstration - continued

	Yes	No
14. Does this project eliminate any other sources of discharge or pollutants? (If so describe how.)	☐	☑

15. How will the increase in production levels positively affect the socioeconomic condition of the area?

Creation of Jobs
higher productivity means more revenue generated back into local economy + TAXES.

16. How will the increase in operational efficiency positively affect the socioeconomic condition of the area?

retention of Jobs.
Farmers are one of the few true producers left in the U.S.A.
Americans do not produce enough now, that is the root of our countrys economic problem. Not just our local area, but for our entire country. We can't ~~afford~~ to lose even one farmer.

IV Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Title:	Bryan Bogie, Bogie Farm LLC member	**Telephone No.:**	(859)985-0643
Signature:	Bryan Bogie	**Date:**	2/2/09

Beefing Up Conservation

Beef, It's What's for Dinner! We all are familiar with the slogan as we think about cooking out on the grill, going to the steakhouse or to the local hamburger eatery. Beefing up conservation — it's important to the production of what's for dinner.

Conservation practices and their importance to beef production was one stop on the recent fall cattle tour. The Madison County Conservation District (CD) was one of the sponsors and participants of the tour. The annual fall tour hosted by the Madison County Beef Cattle Association was held on Bogie Farms owned and operated by Bryan and Denise Bogie in southern Madison County. Tour stops also included beef quality assurance and cattle health, beef cattle minerals and commodity feeds, feeder cattle back grounding, feed grinder/mixer display and in-line hay wrapper display.

Jimmy Marcum, Conservation District Education Liaison, discussed three phases of technical assistance provided to Bogie Farms. Although the magnitude of this farming operation with several hundred head of cattle may be different than the average Madison County farm, the conservation planning and application process is much the same. USDA

Natural Resources Conservation Service (NRCS) and the CD provided technical assistance on a conservation plan, nutrient management plan and engineering plan.

The conservation plan was developed taking into consideration soils information relating to erosion control and water quality. Conservation practices planned and applied included fenced grassed waterways, diversions, tiled trapezoidal waterways, heavy use areas and rip/rap rock check dams. The diversions and tiled waterways carry surface and subsurface water off the areas where cattle are fed to the fenced grassed waterway. Nutrients and sediment are filtered out as the runoff water passes through the grassed waterway. Surface water from some areas also moves across a grassed fescue filter-strip prior to entering the outlet waterway. The filter- strip assists in using nutrients for plant growth and reduces nutrients in the water. The grass is baled for hay and used in feeding the cattle. The water runoff then enters the outlet waterway from the farm that has rock rip/rap check dams to slow the runoff and to filter and catch sediment. Water will be monitored leaving the farm to assist in water quality maintenance.

NRCS also provided technical assistance on a nutrient management plan. Management of the manure produced not only improves water quality it also provides a valuable source of fertilizer. *Based on spring 2008 commercial* fertilizer costs, over $44,000 worth of nutrients are produced on this beef cattle operation. The manure is being used on the Bogie Farm and neighboring farms to produce forages and reduce the need and cost of commercial fertilizers on the equivalent of 250 acres. Heavy use areas of filter fabric with rock have been constructed in the area of the feed bunkers. This manure is removed on a timely basis and spread as fertilizer. Consideration is also being given to construction of a covered stack pad to store manure during winter months.

Engineering assistance was provided by NRCS to properly design conservation measures. Proper construction of structural measures is essential to carrying out the conservation and nutrient management plans. Maintenance of all practices, as on any farming operation, is vitally important to their proper functioning. Beefing up conservation is beneficial not only to farmers, but to all Madison Countians. Good conservation reduces sediment and nutrients in our streams and improves quality of the water we all use. It also is important to produce the beef. It's What's for Dinner!

Madison County Conservation District

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CD supervisors are Mike Parke, serving since 1985, Wes Williams in 1989, Gary Janicke in 1995, John Hart in 2000, Julia Adams in 2003, Shelby Griggs in 2007 and Billy Ray Hughes in 2007.

Jim Claypool Art and Conservation Writing Contest now underway.